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## PATENT SPECIFICATION



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## PROVISIONAL SPECIFICATION.

## Improvements in Building Blocks.

I, LANGFORD PARKIN, of 15, Rufford Road, Sherwood, in the City of Nottingham, a British subject, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in blocks for use in the construction of walls and buildings, and its object is to facilitate the erection of such walls or buildings, and at the same time provide a more substantial structure.

According to this invention, the exterior form of the blocks may for example be rectangular in elevation and plan, the length being for general purposes greater than either the width or height. The said dimensions may however be varied considerably to suit any particular requirements, for instance they may be made in the form of cubes if desired.

The upper face of each block, is formed with two longitudinal grooves, and the lower face with two longitudinal ribs to engage in the grooves in the upper face of the lower block or blocks on which it is laid. The grooves and ribs are disposed so that the blocks must register correctly with each other, and at the same time leave space in the grooves for the mortar or grouting, as well as reinforcing members when the latter are considered necessary.

The middle of each block is formed with preferably two vertical holes which may be round, square, or any other suitable shape, and the respective ends of the block are likewise formed with vertical recesses, which are so shaped that when the blocks are placed end to end, vertical holes are formed at the joints, corresponding to those in the middle of the blocks.

As a result of this arrangement, when the blocks are laid in one course with the middle of each over the joints in the course below, continuous vertical holes are formed in the wall, into which rein-

forcing members can be introduced and grouting subsequently run in, thus forming a structure which is securely bonded together.

In order to register the ends of the blocks in each course correctly with each other, one end of each is provided with one or more projections, and the other end with a corresponding recess or recesses. These projections and recesses may be of any suitable shape so long as they will produce the desired result, that is accurately register the end of one block with that of the next without failure.

In order to reduce the weight and the material required to form each block, they may be formed hollow, two vertical spaces being formed in each block, each of which extends from near the vertical holes in the middle, to near the ends.

The blocks described may be formed of clay, earthenware, artificial stone, concrete or other suitable material, and they are laid with great facility on account of their formation, which ensures the correct registration of each relatively to the others, whilst the structure built up is exceedingly strong, owing to the inter-engagement of the registering members, the provision for continuous horizontal and vertical reinforcing members, and the facilities for grouting the latter in the structure.

In erecting a wall or building with the blocks described, it is proposed to lay them with their faces fitting perfectly close up to each other, that is without mortar courses, grouting only being used in the horizontal grooves and vertical holes or recesses specially provided for this purpose.

In laying a course for instance, grouting is run into the grooves in the upper faces of the blocks in the previous course, the blocks comprising the new course are first laid to the right or left of the posi-

tion they will ultimately occupy, and are then adjusted by sliding them along to their proper places.

This action causes the projecting ribs to register correctly in the longitudinal grooves, it expresses the surplus grouting, and at the same time sweeps it into the vertical recesses or holes, and helps to fill in the latter as the work proceeds.

If preferred the upper and outer corner of each block may be chamfered or rabbeted so as to form what are termed rusticated joints.

Dated this 5th day of December, 1921.

H. C. SHELDON,  
63, Long Row, Nottingham,  
Agent for the Applicant.

## COMPLETE SPECIFICATION.

### Improvements in Building Blocks.

I, LANGFORD PARKIN, of 15, Rufford Road, Sherwood, in the City of Nottingham, a British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in building blocks for the construction of walls and buildings, of the kind which are formed with interengaging projections and recesses for registering the blocks in one course with each other, and with those in the courses above and below. Its object is to facilitate the laying of such blocks, and at the same time provide a more substantial structure.

According to this invention, the blocks are formed with longitudinal grooves on the upper face, vertical grooves on both end faces, longitudinal projecting ribs on the lower face, and projections at one end and recesses to correspond at the other end.

Referring to the accompanying drawings.

Fig. 1 is a side elevation.

Fig. 2 a plan.

Fig. 3 an end elevation, and

Fig. 4 a vertical cross section of a building block made according to my invention.

Fig. 5 is an end elevation of a corresponding building block which is cored out horizontally instead of vertically.

Like letters indicate like parts throughout the drawings.

According to this invention, the exterior form of the building block A is rectangular in elevation and plan, the length being for general purposes greater than either the width or height. The said dimensions may however be varied considerably to suit any particular requirements, but the width is always equal to the thickness of the wall, and the latter is in consequence always a single block in thickness.

The upper face of each block A (see

Figs. 1 to 4) is formed with two longitudinal grooves B and C disposed one on each side, and the lower face with two longitudinal ribs D and E to engage in the grooves B and C in the upper face of the block or blocks in the course below. These grooves B and C and ribs D and E are disposed so that the blocks in one course must register correctly with those in the course below, and at the same time the said grooves and ribs are shaped as shown, so as to leave longitudinal spaces in the former B and C for the mortar or grouting, as well as longitudinal reinforcing members, which are inserted in the grooves B and C when they are considered necessary.

The respective ends of each block are formed with vertical recesses F, which are continuations of the grooves B and C, and are so disposed that when the blocks are placed end to end, vertical holes are formed at the vertical joints between the blocks in each course, which holes can be filled in with grouting and form secure joints.

In order to reduce the amount of material in and the weight of the building blocks A, they are formed with two vertical holes or passages G carried straight through them, and said holes are so disposed that when the blocks are laid in one course with the middle of each over the joints in the course below, the holes G form continuous vertical passages running from the top to the bottom of a wall, which can be left hollow, or into which reinforcing members can be introduced and grouting subsequently run in, thus forming a structure which is securely bonded together.

In order to register the ends of the blocks in each course correctly with each other, one end of each is provided with one or more projections H, and the other end with one or more corresponding recesses J. These projections H and recesses J may be of any suitable shape so long as they will produce the desired

result, that is accurately register the end of one block with that of the next without failure.

The blocks described may be formed of 5 clay, earthenware, artificial stone, concrete or other suitable material, and they are laid with great facility on account of their formation, which ensures the correct registration of each relatively to 10 the others, whilst the structure built up is exceedingly strong, owing to their inter-engagement with each other, the provision for continuous horizontal and vertical reinforcing members, and the 15 facilities for grouting the latter in the structure.

In erecting a wall or building with the blocks described, it is proposed to lay them with their faces fitting perfectly 20 close up to each other, that is without mortar courses, grouting only being used in the horizontal grooves B and C, and the vertical holes formed by the end recesses F specially provided for this 25 purpose.

In laying a course for instance, grouting is run into the grooves B and C in the upper faces of the blocks in the previous course, the blocks comprising the 30 new course are first laid to the right or left of the position they will ultimately occupy, and are then adjusted by sliding them along to their proper places.

This action causes the projecting ribs 35 D and E to register correctly in the longitudinal grooves B and C, it expresses the surplus grouting, and at the same time sweeps it into the vertical holes formed by the end recesses F, and helps 40 to fill in the latter as the work proceeds.

If preferred the upper and outer corner of each block may be chamfered or rabbeted so as to form what are termed 45 rusticated joints.

If preferred the building blocks may be formed with a longitudinal hole or passage K as shown in Fig. 5, in place

of the two vertical holes or passages G previously described.

Blocks for building the angles or 50 corners are formed with a plain end, and the grooves B C and ribs D E are returned at say a right-angle as shown in dotted lines at L in Fig. 2, so as to run out at the side of the block instead of at the ends. 55 These corner blocks are made in two forms, that is, right-hand and left-hand in order to fit accurately together.

Where inner divisional walls occur, a bond for the same is provided by using 60 blocks in the main walls which are formed with projections disposed so as to bond with the divisional wall, or alternatively, blocks with recesses into which the divisional wall can be built, may be used 65 instead.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I 70 claim is:—

1. A building block with longitudinal grooves in its upper face, longitudinal ribs on its lower face corresponding to and adapted to engage with the former 75 in the course below, and corresponding vertical grooves in both end faces which grooves register and form vertical holes between the blocks in each course which can be filled in with grouting. 80

2. A building block as set forth in Claim 1, provided with one or more projections at one end and recesses at the other end in addition to the vertical grooves, for the purpose of registering the 85 blocks in each course correctly end to end.

3. The complete building block substantially as herein described and illustrated in the accompanying drawings.

Dated this 5th day of September, 1922. 90

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[This Drawing is a reproduction of the Original on a reduced scale]

